

CLAIMS

1. A manually actuated metering pump (1) for a rigid
5 bottle (2), of the double-valve type, comprising an
intake lower valve (7) and an expulsion upper valve (8)
at the inlet and at the outlet, respectively, of a
metering chamber (6) that is mounted so as to slide on
the lower valve (7), characterized in that the lower
10 valve (7) and the upper valve (8) are identical.

2. The metering pump as claimed in claim 1,
characterized in that the valves are of
cylindro-conical shape, comprising a dome pierced at
15 its center, the wall of which, in the closure position,
covers the annular outlet orifice.

3. The metering pump as claimed in either of claims 1
and 2, characterized in that the lower valve (7) is
20 fixed to a hollow tube (13) that communicates with the
inside of the bottle.

4. The metering pump as claimed in any one of the
preceding claims, characterized in that the upper valve
25 (8) is mounted on the end of the outlet nozzle of the
pump and constitutes an outermost closure.

5. The metering pump as claimed in any one of the
preceding claims, characterized in that the valves are
30 made of a material having a Shore A hardness of between
40 and 80.

6. The metering pump as claimed in any one of the
preceding claims, characterized in that it includes
35 means (11, 21) for limiting the travel of the pusher.

7. The metering pump as claimed in claim 1,
characterized in that it is sealably mounted on the
rigid body (2) via a ring or a cap (3).

8. The metering pump as claimed in any one of claims 1 to 6, characterized in that it is mounted directly on the rigid bottle (2).

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9. The metering pump as claimed in any one of claims 1 to 6, characterized in that it is mounted on the neck (17) of a flexible pouch (16) placed in the rigid bottle (2).

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10. The metering pump as claimed in claim 9, characterized in that it includes an air inlet circuit for air to enter the space separating the flexible pouch (16) from the inner wall of the rigid bottle (2).

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11. The metering pump as claimed in claim 10, characterized in that the air inlet circuit is located level with the pusher of the pump, and comprises means (19) for ensuring that it is closed off when the pusher (9) is raised, in the rest position.

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12. The metering pump as claimed in any one of claims 1 to 8, characterized in that it is sealably mounted on the neck of the rigid bottle (2), the bottom of which includes a vent (22).

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13. The metering pump as claimed in claim 12, characterized in that the vent (22) is provided with a valve (25) and with a filter (24).

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14. A device for packaging and dispensing fluid, liquid or pasty products, characterized in that it comprises a metering pump as claimed in any one of the preceding claims, associated with a rigid bottle.